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# Technical Assessment: Results of Expert Meetings in 2015 and 2016

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# Overview

- Technical assessment has been conducted through combination of an online questionnaire survey (from 30 January to 27 February 2015) and expert meetings
- Expert meetings in 2015:
  - Expert Meeting for Technical Assessment of IPCC Inventory Guidelines (Energy, IPPU, Waste Sectors), 29 June -1 July 2015, Geneva, Switzerland
  - Expert Meeting for Technical Assessment of IPCC Inventory Guidelines (AFOLU Sector), 13-16 July 2015, Sao Paulo, Brazil
- Expert meetings in 2016:
  - Expert Meeting to follow up on specified issues from the 2015 expert meetings, 25-26 April 2016, Wollongong, Australia
  - Expert Meeting on Cross-sectoral Issues, 27-29 April 2016, Wollongong, Australia

## Expert Meetings in 2015

- The meetings aimed:
  - To assess the maturity of scientific advances and the availability of new data
  - To identify any specific areas or issues that should be prioritized in TFI's future work
  - To consider associated cross-sectoral issues identified in the online questionnaire survey
- Considered comments submitted by experts in response to the online questionnaire survey to make recommendations to TFB on:
  - Categories for which the science is sufficiently mature and data are available to recommend refinement or development of inventory guidance
  - Where such refinement or development on the basis of this new information would lead to a noticeable improvement to inventory guidance
  - Specific type of refinement or updating that is needed for those categories
  - How these refinements could be made (i.e. suggested possible ways to address issues)
- Outcome of the expert meetings was considered by TFB, and was reflected into the TFI's work programme for 2016

# Expert Meetings in 2015: Outcomes (1)

- Some of the issues need to be addressed by producing a new Methodology Report(s). It is necessary to:
  - develop new or additional guidance on sources and/or gases that are not covered by the *2006 IPCC Guidelines* (e.g. greenhouse gas (GHG) emissions from unconventional oil and gas production, GHG emissions from hydrogen production, N<sub>2</sub>O emissions from industrial wastewater treatment process)
  - refine guidance to reflect significant scientific or technical developments since the *2006 IPCC Guidelines* were produced (e.g. guidance on land representation linking land classification system and digital maps)
  - update or add default data of emission factors and other parameters for some categories (e.g. fugitive emissions from oil and gas, substitutes for ozone depleting substances used for refrigeration and air conditioning, N<sub>2</sub>O emissions from wastewater treatment, values for litter, deadwood, biomass expansion factors (BEF)/biomass conversion and expansion factors (BCEF), direct and indirect N<sub>2</sub>O emissions from managed soils)

## Expert Meetings in 2015: Outcomes (2)

- Some other issues can be addressed by utilizing other means (IPCC Supporting Materials) including
  - Emission Factor Database (EFDB)
  - TFI's webpage on Frequently Asked Questions (FAQs)
  - Technical bulletins or expert meeting reports
- Some issues require further intensive consideration by relevant experts before starting refinements. Consequently, after TFB's further consideration, the following 4 areas were identified:
  - Unidentified sources of perfluorocarbons (PFCs)
  - Emissions from soils
  - Land representation
  - Emissions from flooded land

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## Expert Meetings in 2016

- Two expert meetings were held in April 2016, Wollongong
  - To follow up on issues identified at the two expert meetings held in 2015
  - To consider cross-sectoral issues to assess the maturity of scientific advances and availability of new data and identify any specific areas or issues that should be prioritized in TFI's future work

# Expert meetings in 2016: Follow-up Meeting

- Focused on four main areas:
  - Unidentified sources of PFCs
  - Emissions from soils
  - Land representation
  - Emissions from flooded land
- To make recommendations to the TFB on whether these issues need to be addressed in a new Methodology Report(s) to refine the *2006 IPCC Guidelines*
- Key considerations were:
  - Whether the science is sufficiently mature and data are available to recommend refinement or development of inventory guidance
  - Whether such refinement or development would lead to a noticeable improvement of the *2006 IPCC Guidelines*
  - Specific type of refinement or update that is needed (e.g. update or addition of default emission factors and parameters, augmentation of guidance, improvement or provision of alternative estimation methods)

# Expert meetings in 2016: Outcomes of the Follow-up Meeting

- Some of the issues need to be addressed by producing a new Methodology Report(s).
  - **Unidentified sources of PFCs** (e.g. new guidance on “non-anode effect” for emissions from aluminium production, development of new guidance on emissions from rare earth elements production, update of some default emission factors)
  - **Emissions from soils** (e.g. alternative method for estimation of C stock change in mineral soils under cropland and grassland, update of default C stock change factors, disaggregation of emission factor for direct N<sub>2</sub>O emissions from soils)
  - **Land representation** (e.g. elaboration of existing guidance on Chapter 3 of Volume 4 including elaboration on the guidance on linking land classification system with remote sensing and digital maps, use of global data sets, products and tools for land use representation, elaboration of guidance on activity data uncertainties and how to use Tier 1 and 2 methods with Approach 3)
  - **Emissions from flooded land** (e.g. new guidance on flooded land)
- Some other issues can be addressed by utilizing other means (IPCC Supporting Materials) such as TFI’s webpage on FAQs

# Expert Meetings in 2016: Cross-sectoral Meeting

- Focused on two main areas:
  - Approaches to Data Collection and Time Series Consistency
  - Uncertainties, QA/QC, Verification, Precursors and Indirect Emissions
- To make recommendations to the TFB on:
  - Cross-sectoral guidance for which the science is sufficiently mature and data/information are available to recommend refinement or development of inventory guidance
  - Where such refinement or development on the basis of this new information would lead to a noticeable improvement of the *2006 IPCC Guidelines*
  - Specific type of refinement or updating that is needed for cross-sectoral guidance/tools (e.g. elaboration or clarification of existing guidance in the *2006 IPCC Guidelines*, provision of new additional guidance)
  - How these refinements should be made (e.g. in a new Methodology Report, TFI's webpage on FAQs)

## Expert Meetings in 2016: Outcomes of the Cross-sectoral Meeting

- Some of the issues need to be addressed by producing a new Methodology Report(s).
  - **Approaches to Data Collection and Time Series Consistency** (e.g. clarification or additional guidance on developing country-specific emission factors, activity data collection including provisions of examples for incorporating confidential data, integration of facility level data, use and reporting of models, additional guidance on time series consistency including incorporation of guidance to reflect that parameters and various conditions of the associated source/sink, such as technology used may change over time)
  - **Uncertainties, QA/QC, Verification, Precursors and Indirect Emissions** (e.g. update of the guidance on uncertainty chapter providing additional guidance and simplified explanation with case studies and decision trees, update guidance on verification by discussing various ways to verify emission estimates with case examples, clarification of guidance on indirect emissions including Box 7.2)
- Some other issues can be addressed by utilizing other means (IPCC Supporting Materials) such as TFI's webpage on FAQs and technical bulletins

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## Expert Meetings in 2016: Future Meetings

- Key recommendations from the technical assessment meetings in 2015 and 2016 will be considered at a Scoping Meeting for a new Methodology Report(s) in late August 2016
- The meeting will also consider the scope and format of the report(s)
  - Draft terms of reference
  - Draft table of contents
  - Draft work plan

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# Thank you

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